

CLAIMS

What is claimed is:

1 1. A method of providing access to services across a computer network, comprising the
2 step of:

3 generating an access request, said access request including a network device
4 description and a plurality of service requests indicative of computer services
5 for which the network device requests provisioning; and
6 forwarding said access request for authentication and authorization.

1 2. A method according to Claim 1 in which the access request is a RADIUS packet, the
2 service requests being defined by information contained within Vendor-Specific Attribute
3 (VSA) blocks in the said packet.

1 3. A method according to Claim 2 in which each said block contains a device-type
2 identifier and a service-request identifier.

1 4. A method according to Claim 2 in which the packet is a RADIUS-compliant
2 authentication request packet.

1 5. A method according to Claim 1 in which the device description includes one or more
2 of device vendor, device type, device version, physical location.

1 6. A method according to Claim 1 in which the service requests include a request for a
2 particular service level.

1 7. A method according to Claim 1 in which a policy is applied to the access request to
2 determine whether access will be allowed, and if so for what services.

1 8. A method according to Claim 1 in which a network resources are provisioned in
2 dependence upon the access request.

1 9. A method according to Claim 1 in which the steps of receiving and applying are
2 performed by an access-control server or an Authentication, Authorization and Audit (AAA)
3 server.

1 10. A method according to Claim 9 in which the access-control server uses the access
2 request to select among multiple services that are specified for a particular device.

1 11. A network device arranged to provide access to services across a computer network,
2 comprising:

3 means for generating an access request, said access request including a network
4 device description and a plurality of service requests indicative of computer
5 services for which the network device requests provisioning; and
6 means for forwarding said access request for authentication and authorization.

1 12. A network device according to Claim 11 including means to generate RADIUS-
2 compliant packets, the service requests being defined by information contained within
3 Vendor-Specific Attribute (VSA) blocks in this said packet.

1 13. A network device, comprising:

2 a network interface capable of being coupled to a computer network and for sending
3 to the network access requests, and a processor having one or more stored
4 sequences of instructions which, when executed, cause the processor to
5 perform the steps of:

6 generating an access request for forwarding via the network interface, said access
7 request including a network device description and a plurality of service
8 requests indicative of computer services for which the network device
9 requests provisioning; and
10 forwarding said access request for authentication and authorization..

1 14. A network device according to Claim 13 in which the access request is received as a
2 RADIUS packet, the service requests being defined by information contained within Vendor-
3 Specific Attribute (VSA) blocks in this said packet.

1 15. A network device according to Claim 14 in which each said block contains a device-
2 type identifier and a service-request identifier.

1 16. A network device according to Claim 14 in which the packet is a RADIUS-compliant
2 authentication request packet.

1 17. A network device according to Claim 13 in which the device description includes one
2 or more of device vendor, device type, device version, physical location.

1 18. A network device according to Claim 13 in which the service requests include a
2 request for a particular service level.

1 19. A computer system comprising
2 an access-control server for controlling access to resources on the network when
3 requested by network devices, the access-control server being arranged:
4 (a) to receive an access request from a network device, said access request
5 including a network device description and a plurality of service requests
6 indicative of computer services for which the network device requests
7 provisioning; and

8 (b) to apply a policy to the access request to determine whether access will be
9 allowed, and if so for what services.

1 20. A computer system according to Claim 19 in which the access control server instructs
2 the provisioning of network resources in dependence upon the access request.

1 21. A computer system according to Claim 19 in which the access-control server is an
2 Authentication, Authorization and Audit (AAA) server.

1 22. A computer system according to Claim 19 in which the access-control server uses the
2 access request to select among multiple services that are specified for a particular device.

1 23. A computer-readable medium carrying a sequence of instructions which, when
2 executed by one or more processors, causes said processor or processors to perform the steps
3 of:

4 generating an access request for access to resources on a computer network, said
5 access request including a network device description and a plurality of
6 service requests indicative of computer services for which the network device
7 requests provisioning; and
8 forwarding said access request for authentication and authorization..

1 24. A computer-readable medium according to Claim 23 further including instructions for
2 generating a RADIUS packet, the service requests being defined by information contained
3 within Vendor-Specific Attribute (VSA) blocks in said packet.

1 25. A computer-readable medium according to Claim 24 further including instructions for
2 creating within each said block a device-type identifier and a service-request identifier

1 26. A computer-readable medium according to Claim 24 in which the generated packet is
2 a RADIUS-compliant authentication request packet.

1 27. A computer-readable medium according to Claim 23, in which the device description
2 includes one or more of device vendor, device type, device version, physical location.

1 28. A computer-readable medium according to Claim 23, in which service requests
2 include a request for a particular service level.

1 29. A network device as claimed in claim 11 or claim 13 comprising a network access
2 device which controls end-user device access to a network, and which requests services on
3 behalf of one or more said end-user devices.

1 30. A network device as claimed in claim 11 or claim 13 in which said device requests
2 services for its own use.